UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,663	03/18/2004	Jimmie Earl DeWitt JR.	AUS920030548US1	7005

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ART UNIT	PAPER NUMBER
2192	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/803,663	DEWITT ET AL.
	Examiner	Art Unit	
	Ben C. Wang	2192	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 March 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _See Continuation Sheet_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :01/23/2007, 11/10/2006, 08/21/2006, 06/19/2006, 06/05/2006, 03/18/2004.

DETAILED ACTION

1.   Claims 1-23 are pending in this application and presented for examination

Drawing Objections

2.   The drawing is objected to because the following informalities:

- there are two duplicate labels of "630" contained in Fig. 6

Appropriate correction is required.

Specification Objections

3.   The specification is objected to because the following informalities:

- "to the allocated thread work area as events <u>occurs</u> in one", cited in P. 10, Line 1, should be corrected as "to the allocated thread work area as events <u>occur</u> in one"

- "to the allocated thread work area as events <u>occurs</u> in", cited in P. 10, Line 61, should be corrected as "to the allocated thread work area as events <u>occur</u> in"

Appropriate correction is required.

Claim Objections

4.   Claims 12-24 are objected to because the following informalities:

The numbering of claims is not in accordance with 37 CFR 1.126 which

requires the original numbering of the claims to be preserved throughout

the prosecution. When claims are canceled, the remaining claims must

not be renumbered. When new claims are presented, they must be

numbered consecutively beginning with the number next following the

highest numbered claims previously presented (whether entered or not).

However, there is no claim number 11 filed. In the spirit of compact

prosecution process, misnumbered Claim 12-24 have been renumbered

as claim 11-23 accordingly.

Appropriate correction is required.

Claim Rejections – 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

5.   Claims 21-23 are rejected under 35 U.S.C 101 because the claims are

directed to non-statutory subject matter.

6.   **As to claim 21** (was 22), a "computer readable medium" is being cited,

line 1, to include transmission-type media, light waves, radio frequency etc., cited

in P. 48, lines 14-24, in the specifications; the claim is directed to a computer

readable medium. However, Applicant defines "computer readable medium" to

include "a computer data signal embodied in a carrier wave". Signals and carrier

waves do not fall within any class of statutory subject matter, and thus the claim

is not limited to statutory subject matter. Please see Interim Guidelines for

Examination of Patent Applications for Patent Subject Matter Eligibility (1300 OG

142), Annex IV, Section (C) for details.

7.   **As to claims** 22-23 (were 23-24), they are merely further recited as

computer readable medium per se, thus, do not cure the deficiency of base claim

21, and also rejected under 35 U.S.C. 101 as set forth above.

Claim Rejections – 35 USC § 102(e)

The following is quotation of 35 U.S.C. 102(e) which form the basis for all

obviousness rejections set forth in this office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent granted
> on an application for patent by another filed in the United States before the invention by the applicant for
> patent, except that an international application filed under the treaty defined in section 351(a) shall have
> the effects for purposes of this subsection of an application filed in the United States only if the
> international application designated the United States and was published under Article 21(2) of such
> treaty in the English language.

8.   Claims 1-13, 17-18, 20-21, and 23 are rejected under 35 U.S.C. 102(e) as

being anticipated by DeWitt, JR. et al. (Pub. No. US 2005/0102673 A1)

(hereinafter 'DeWitt')

9.   **As to claim 1**, DeWitt discloses a method in a data processing system for

autonomically determining execution flow of a computer program, comprising:

providing a set of hardware registers for identifying a work area for a thread of

the computer program (Fig. 6, elements of 612 – Control Bit Register, 614 –

Control Register (Beginning Address), 616 – Control Register (Length); Fig. 7,

element of "Set Control Registers To Point To Beginning And Length Of Work

Area"), wherein the work area stores thread tracking information for the thread

(Fig. 6, element 622 – processor created thread work area; [0077], Lines 3-8 –

the work areas for storing of thread tracking information); copying thread tracking

information from the work area to a buffer using the set of hardware registers

(Fig. 3, element 304 – buffer; [0045], Lines 9-11; [0054]; [0076] – copy the

contents of the work areas for certain threads of interest to the trace buffer);

retrieving symbolic data for the thread ([0045], Lines 14-16 – to generate an

indexed database of symbolic data for loaded modules); and generating a call

sequence of the computer program based on the symbolic data for the thread

(Fig. 7, element of "Write Call Stack Entry To Work Area"; Fig. 9, element of 960

- Write Call Stack Entry For Call/Return To Designated Work Area"; [0014], Lines

4-9; [0017], Lines 4-14).

10.   **As to claim 18** (was 19), DeWitt discloses a data processing system for

autonomically determining execution flow of a computer program, the data

processing system comprising: providing means for providing a set of hardware

registers for identifying a work area for a thread of the computer program (Fig. 6,

elements of 612 – Control Bit Register, 614 – Control Register (Beginning

Address), 616 – Control Register (Length); Fig. 7, element of "Set Control

Registers To Point To Beginning And Length Of Work Area"), wherein the work

area stores thread tracking information for the thread (Fig. 6, element 622 –

processor created thread work area; [0077], Lines 3-8 – the work areas for

storing of thread tracking information); copying means for copying thread tracking

information, from the work area to a buffer using the set of hardware registers

(Fig. 3, element 304 – buffer; [0045], Lines 9-11; [0054]; [0076] – copy the

contents of the work areas for certain threads of interest to the trace buffer);

retrieving means for retrieving symbolic data from the thread ([0045], Lines 14-16

– to generate an indexed database of symbolic data for loaded modules); and

generating means for generating a call sequence of the computer-program based

on the symbolic data for the thread (Fig. 7, element of "Write Call Stack Entry To

Work Area"; Fig. 9, element of 960 - Write Call Stack Entry For Call/Return To

Designated Work Area"; [0014], Lines 4-9; [0017], Lines 4-14).

11.   **As to claim 21** (was 22), DeWitt discloses a computer program product in

a computer readable medium for determining execution flow of a computer

program, the computer program product comprising: first instructions for

providing a set of hardware registers for identifying a work area for a thread of

the computer program (Fig. 6, elements of 612 – Control Bit Register, 614 –

Control Register (Beginning Address), 616 – Control Register (Length); Fig. 7,

element of "Set Control Registers To Point To Beginning And Length Of Work

Area"), wherein the work area stores thread tracking information for the thread

(Fig. 6, element 622 – processor created thread work area; [0077], Lines 3-8 –

the work areas for storing of thread tracking information); second instructions for

copying thread tracking information from the work area to a buffer using the set

of hardware registers (Fig. 3, element 304 – buffer; [0045], Lines 9-11; [0054];

[0076] – copy the contents of the work areas for certain threads of interest to the

trace buffer); third instructions for retrieving symbolic data for the thread ([0045],

Lines 14-16 – to generate an indexed database of symbolic data for loaded

modules); and fourth instructions for generating a call sequence of the computer

program based on the symbolic data for the thread (Fig. 7, element of "Write Call

Stack Entry To Work Area"; Fig. 9, element of 960 - Write Call Stack Entry For

Call/Return To Designated Work Area"; [0014], Lines 4-9; [0017], Lines 4-14).

12.   **As to claim 2** (incorporating the rejection in claim 1), DeWitt discloses the

method wherein the set of hardware registers includes a work area register, a

work area length register, and a current pointer register (Fig. 6, elements of 612

– Control Bit Register, 614 – Control Register (Beginning Address), 616 – Control

Register (Length); Fig. 7, element of "Set Control Registers To Point To

Beginning And Length Of Work Area"; [0071], Lines 4-11).

13.   **As to claim 3** (incorporating the rejection in claim 2), DeWitt discloses the

method wherein the work area register includes a pointer pointing to a beginning

of the work area for the thread (Fig. 7, element of "Set Control Registers To Point

To Beginning And Length Of Work Area"; [0071], Lines 4-11).

14.   **As to claim 4** (incorporating the rejection in claim 2), DeWitt discloses

the method wherein the work area length register includes one of a size of the

work area for the thread or a pointer pointing to an end of the work area for the

thread (Fig. 6, elements 614 – Control Register (Beginning Address), 616 –

Control Register (Length); [0072]).

15.   **As to claim 5** (incorporating the rejection in claim 2), DeWitt discloses the

method wherein the current pointer register includes a pointer pointing to the

location of the work area where last thread tracking information is written (Fig. 6,

element 616 – Control Register (Length); [0071], Lines 4-11).

16.   **As to claim 6** (incorporating the rejection in claim 1), DeWitt discloses the

method wherein the thread tracking information for the thread includes a plurality

of call stack entries for the thread ([0067], Lines 1-9 – writes call stack entries

into thread work areas).

17.   **As to claim 7** (incorporating the rejection in claim 1), DeWitt discloses the

method wherein each of the plurality of call stack entries is written upon detection

of one of a method call and a method return for the thread ([0067], Lines 1-9 – in

response to the detection of an entry/exit method/routine event).

18.   **As to claim 8** (incorporating the rejection in claim 7), DeWitt discloses the

method wherein each of the plurality of call stack entries includes an address to

and an address from which one of the method call and a method return is

executed ([0067], Lines 1-9 – in response to the detection of an entry/exit

method/routine event).

19.   **As to claim 9** (incorporating the rejection in claim 8), DeWitt discloses the

method wherein each of the plurality of call stack entries further includes

additional information, and wherein the additional information includes time

stamps ([0005], Lines 11-12) and performance monitoring counter values ([0044];

[0052], Lines 10-12).

20.   **As to claim 10** (incorporating the rejection in claim 9), DeWitt discloses

the method wherein the additional information is compressed with the address to

and the address from which one of the method call and a method return is

executed when each of the plurality of call stack entries is written ([0067], Lines

1-9 – writes call stack entries into thread work areas in response to the detection

of an entry/exit method/routine event).

21.   **As to claim 11** (was 12) (incorporating the rejection in claim 9), DeWitt

discloses the method wherein the additional information is compressed with the

address to and the address from which one of the method call and a method

return is executed when the thread tracking information is copied from the work

area to a buffer (Fig. 3, element 304 – buffer; [0045], Lines 9-11; [0054]; [0076] –

copy the contents of the work areas for certain threads of interest to the trace

buffer).

22.   **As to claim 12** (was 13) (incorporating the rejection in claim 1), DeWitt

discloses the method wherein copying thread tracking information from the work

area to a buffer includes copying thread tracking information when a work area

overflow occurs ([0063]; Fig. 9, elements of 930, 935, 940, and 960; [0084], Lines

8-15).

23.   **As to claim 13** (was 14) (incorporating the rejection in claim 1), DeWitt

discloses the method wherein the buffer is one of a trace buffer and a

consolidated buffer accessible by an application (Fig. 3, elements 300 – trace

program, 304 – buffer; [0045], Lines 9-11, 14-16).

24.   **As to claim 17 (was 18)** (incorporating the rejection in claim 1), DeWitt

discloses the method wherein generating a call sequence of the computer

program includes associating the retrieved symbolic data with the thread tracking

information in the buffer (Fig. 7, element of "Write Call Stack Entry To Work

Area"; Fig. 9, element of 960 - Write Call Stack Entry For Call/Return To

Designated Work Area"; [0014], Lines 4-9; [0017], Lines 4-14; [0045], Lines 14-

16).

25.   **As to claim 20** (was 21) (incorporating the rejection in claim 18), DeWitt

discloses the data processing system wherein the generating means comprises:

associating means for associating the retrieved symbolic data with the thread

tracking information in the buffer (Fig. 7, element of "Write Call Stack Entry To

Work Area"; Fig. 9, element of 960 - Write Call Stack Entry For Call/Return To

Designated Work Area"; [0014], Lines 4-9; [0017], Lines 4-14; [0045], Lines 14-

16).

26.   **As to claim 23** (was 24) (incorporating the rejection in claim 21), DeWitt

discloses the computer program product wherein the fourth instruction

comprises: sub-instructions for associating the retrieved symbolic data with the

thread tracking information in the buffer (Fig. 7, element of "Write Call Stack

Entry To Work Area"; Fig. 9, element of 960 - Write Call Stack Entry For

Call/Return To Designated Work Area"; [0014], Lines 4-9; [0017], Lines 4-14;

[0045], Lines 14-16).

Claim Rejections – 35 USC § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> patented and the prior art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the art to which said subject
> matter pertains. Patentability shall not be negatived by the manner in which the invention was
> made.

27.   Claims 14-16, 19, and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over DeWitt in view of Hussain et al. (Pat. No. US 6,658,416 B1)

(hereinafter 'Hussain')

28.   **As to claim 14** (was 15) (incorporating the rejection in claim 1), DeWitt

does not explicitly disclose the method wherein retrieving symbolic data for the

thread includes retrieving symbolic data from an indexed symbolic database by

searching the indexed symbolic database for symbolic data based on a process

identifier for the thread.

However, in an analogous art of apparatus and method for creating an

indexed database of symbolic data for use with trace data of a computer

program, Hussain discloses the method wherein retrieving symbolic data for the

thread includes retrieving symbolic data from an indexed symbolic database by

searching the indexed symbolic database for symbolic data based on a process

identifier for the thread (Fig. 10A, element of 1005 – Symbolic Data; Fig. 10B,

element of 1070 – Symbolic Data; Fig. 13B, element of 1340; Fig. 18, elements

1830 – Search Indexed Database for Symbol Data Matching PID and Address,

1850 – Display Symbolic Data In Accordance With Trace File; Col. 16, Line 30 –

Process identification (pid)).

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time the invention was made to combine the teachings of Hussain into the

DeWitt's system to further provide the method wherein retrieving symbolic data

for the thread includes retrieving symbolic data from an indexed symbolic

database by searching the indexed symbolic database for symbolic data based

on a process identifier for the thread in DeWitt system.

The motivation is that it would further enhance the DeWitt's system by

taking, advancing and/or incorporating Hussain's system which offers significant

advantages that the merged symbol file contains information useful in performing

symbolic resolution of address information in trace files for each instance of a

module as once suggested by Hussain (Abstract, Lines 8-20).

29.   **As to claim 15** (was 16) (incorporating the rejection in claim 14), Hussain

discloses the method wherein the symbolic data matches the process identifier

for the thread and the address of one of a method call and a method return for

the thread (Fig. 8, elements 1810, 1820, and 1830; Col. 21, Line 58 through Col.

22, Line 2).

30.   **As to claim 16** (was 17) (incorporating the rejection in claim 1), DeWitt

does not explicitly disclose the method wherein retrieving symbolic data for the

thread includes retrieving symbolic data from one of a directory of the loaded

module, a shadow directory, or a loaded module if an address of the loaded

module on a disk is known.

However, in an analogous art of apparatus and method for creating an

indexed database of symbolic data for use with trace data of a computer

program, Hussain discloses the method wherein retrieving symbolic data for the

thread includes retrieving symbolic data from one of a directory of the loaded

module, a shadow directory, or a loaded module if an address of the loaded

module on a disk is known (Fig. 17, element 1710, 1720; Col. 15, Lines 27-56;

Col. 16, Lines 5-18; Col. 21, Lines 14-22; Col. 22, Lines 25-34, 41-49).

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time the invention was made to combine the teachings of Hussain into the

DeWitt's system to further provide the method wherein retrieving symbolic data

for the thread includes retrieving symbolic data from one of a directory of the

loaded module, a shadow directory, or a loaded module if an address of the

loaded module on a disk is known in DeWitt system.

The motivation is that it would further enhance the DeWitt's system by

taking, advancing and/or incorporating Hussain's system which offers significant

advantages that the merged symbol file contains information useful in performing

symbolic resolution of address information in trace files for each instance of a

module as once suggested by Hussain (Abstract, Lines 8-20).

31.   **As to claim 19** (was 20) (incorporating the rejection in claim 18), DeWitt

does not explicitly disclose the data processing system wherein the retrieving

means comprises: searching means for searching an indexed symbolic database

for symbolic data based on a process identifier for the thread.

However, in an analogous art of apparatus and method for creating an

indexed database of symbolic data for use with trace data of a computer

program, Hussain discloses the data processing system wherein the retrieving

means comprises: searching means for searching an indexed symbolic database

for symbolic data based on a process identifier for the thread (Fig. 10A, element

of 1005 – Symbolic Data; Fig. 10B, element of 1070 – Symbolic Data; Fig. 13B,

element of 1340; Fig. 18, elements 1830 – Search Indexed Database for Symbol

Data Matching PID and Address, 1850 – Display Symbolic Data In Accordance

With Trace File; Col. 16, Line 30 – Process identification (pid)).

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time the invention was made to combine the teachings of Hussain into the

DeWitt's system to further provide the data processing system wherein the

retrieving means comprises: searching means for searching an indexed symbolic

database for symbolic data based on a process identifier for the thread in DeWitt

system.

The motivation is that it would further enhance the DeWitt's system by

taking, advancing and/or incorporating Hussain's system which offers significant

advantages that the merged symbol file contains information useful in performing

symbolic resolution of address information in trace files for each instance of a

module as once suggested by Hussain (Abstract, Lines 8-20).

32.   **As to claim 22** (was 23) (incorporating the rejection in claim 21), DeWitt

does not explicitly disclose the computer program product wherein the third

instruction comprises: sub-instructions for searching an indexed symbolic

database for symbolic data based on a process identifier for the thread.

However, in an analogous art of apparatus and method for creating an

indexed database of symbolic data for use with trace data of a computer

program, Hussain discloses the computer program product wherein the third

instruction comprises: sub-instructions for searching an indexed symbolic

database for symbolic data based on a process identifier for the thread (Fig. 10A,

element of 1005 – Symbolic Data; Fig. 10B, element of 1070 – Symbolic Data;

Fig. 13B, element of 1340; Fig. 18, elements 1830 – Search Indexed Database

for Symbol Data Matching PID and Address, 1850 – Display Symbolic Data In

Accordance With Trace File; Col. 16, Line 30 – Process identification (pid)).

Therefore, it would have been obvious to one of ordinary skill in the art, at

the time the invention was made to combine the teachings of Hussain into the

DeWitt's system to further provide the computer program product wherein the

third instruction comprises: sub-instructions for searching an indexed symbolic

database for symbolic data based on a process identifier for the thread in DeWitt

system.

The motivation is that it would further enhance the DeWitt's system by

taking, advancing and/or incorporating Hussain's system which offers significant

advantages that the merged symbol file contains information useful in performing

symbolic resolution of address information in trace files for each instance of a

module as once suggested by Hussain (Abstract, Lines 8-20).

Conclusion

33.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- Fluhr et al., Atomic Quad Word Storage In A Simultaneous

  Multithreaded System (Pub. No. US 2004/0216104 A1)

- Borkenhagen et al., Apparatus and Method To Guarantee Forward

  Progress In Execution of Threads in A Multithreaded Processor (Pat.

  No. 6,105,051)

- Eickemeyer et al., Shared Resource Queue for Simultaneous

  Multithreading Processing Wherein Entries Allocated To Different

  Threads Are Capable Of Being Interspersed Among Each Other and A

  Head Pointer For One Thread Is Capable Of Wrapping Around Its Own

  Tail In Order To Access A Free Entry (Pat. No. US 6,988,186 B2)

- Burky et al., Method For Resource Balancing Using Dispatch Flush In

  A Simultaneous Multithread Processor (Pub. No. US 2004/0216105

  A1)

- W. T. Flynn, Facilities For Detailed Software Performance Analysis In

  A Multithreaded Processor (Pat. No. US 6,256,775 B1)

- L. M. Browning, Enhanced Thread Processing (Pat. No. US 6,654,781
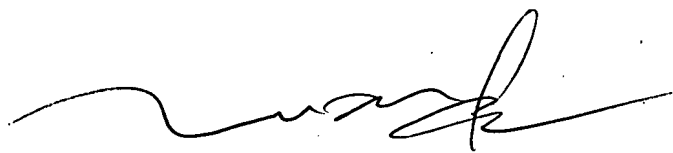
  B1)

34.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Ben C. Wang whose telephone number is

571-270-1240. The examiner can normally be reached on Monday - Friday, 8:00

a.m. - 5:00 p.m., EST.

     If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

     Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

TUAN DAM
SUPERVISORY PATENT EXAMINER

BCW

April 25, 2007